CLAIMS:

1.   A liquid injection apparatus comprising:
a liquid container having a memory element which stores
information about retained liquid;
a carriage mounting said liquid container and having a
liquid injection head which injects said liquid; and
moving means which moves said carriage, the liquid
injection apparatus characterized by comprising:
acquisition means that acquires information stored in a
memory element which is equipped on a replacement liquid
container replaceable with the liquid container mounted on
said carriage and stores information about retained liquid;
decision means which determines whether or not to replace
said liquid container mounted on said carriage with said
replacement liquid container, based on the information
acquired by said acquisition means; and
control means which controls said moving means in such a
way as to move said carriage to a replacement position from a
standby position in the case where said decision means has
decided that replacement with said replacement liquid
container should be done.

2.   The liquid injection apparatus according to claim 1,
characterized in that a color and remaining amount of liquid
retained in the corresponding liquid container are stored as
said information in each said memory element,
said acquisition means acquires the information stored in
said memory element of the liquid container mounted on said
carriage, and
said decision means decides that the liquid container
should be replaced with said replacement liquid container in
the case where the remaining amount of the liquid in the
replacement liquid container is larger than a remaining amount
of the liquid in the liquid container which is mounted on said

carriage and retains a liquid of the same color as that of the liquid in said replacement liquid container.

3. The liquid injection apparatus according to claim 1 or 2, characterized in that a plurality of liquid containers are mounted on said carriage, and when one of said liquid containers mounted on said carriage has been replaced with said replacement liquid container, if said acquisition means acquires information from a memory element provided in another replacement liquid container while the carriage is at the replacement position, said control means controls said moving means to replace with said another replacement liquid container one of the liquid containers on the carriage that retains a liquid of the same color as the liquid in said another replacement liquid container.

4. The liquid injection apparatus according to any one of claims 1 to 3, characterized in that in the case where said acquisition means has not acquired information from a memory element provided in another replacement liquid container after a predetermined time has passed since replacement of the liquid container on said carriage with said replacement liquid container at said replacement position, said control means controls said moving means in such a way as to move said carriage at said replacement position to said standby position.

5. The liquid injection apparatus according to any one of claims 1 to 4, characterized by further comprising operation means which is operated to drive said moving means arbitrarily to move said carriage to said replacement position and said standby position regardless of a decision by said decision means.

6. The liquid injection apparatus according to any one

of claims 1 to 5, characterized by further comprising display control means for displaying on a display device information stored in the memory element in said replacement liquid container, acquired by said acquisition means.

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    7. A liquid injection apparatus characterized by comprising:

    a liquid container having a memory element which stores information about retained liquid;

10   a carriage mounting said liquid container in a detachable manner and having a liquid injection head which injects the liquid;

    moving means which moves said carriage; and

    a housing having a cover portion which covers said liquid

15 container and said carriage in such a way as to make it impossible to replace said liquid container at a predetermined position in a moving area of said carriage, and characterized in that

    a first communication section is connected to said memory

20 element, and information acquisition means having a second communication section communicatable in a non-contact manner is provided at a portion of said cover portion that faces said first communication section.

25   8. The liquid injection apparatus according to claim 7, characterized in that said liquid container has a bottom, a top opposite to said bottom, and sides extending between said bottom and said top, a liquid supply port is provided in said bottom for supplying a liquid to said liquid injection head,

30 and said first communication section is provided on said top.

    9. The liquid injection apparatus according to claim 7 or 8, characterized in that a plurality of liquid containers are mounted on said carriage in a detachable manner, and at

35 least the liquid container that is at a position

communicatable with said second communication section is
covered with said cover portion.

10.   The liquid injection apparatus according to any one
of claims 7 to 9, characterized in that the movement area of
said carriage includes a first zone set for injecting a liquid
toward a predetermined target and a remaining second zone, and
said cover portion is provided in association with said second
zone.

11.   A control method for a liquid injection apparatus
which performs liquid injection while moving a carriage on
which a liquid container is mounted, the liquid container
having a memory element which stores information about
retained liquid, and the carriage having a liquid injection
head which injects said liquid, the method characterized by
comprising:
      acquiring information about a liquid, stored in a memory
element equipped on a replacement liquid container replaceable
with the liquid container mounted on said carriage;
      determining whether or not to replace said liquid
container mounted on said carriage with said replacement
liquid container, based on the information about the liquid in
said replacement liquid container; and
      moving said carriage to a replacement position in the
case where it is decided that the liquid container mounted on
said carriage should be replaced with said replacement liquid
container.

12.. The method for a liquid injection apparatus
according to claim 11, characterized by further comprising
acquiring the information stored in said memory element of the
liquid container mounted on said carriage, and characterized
in that
      a color and remaining amount of liquid retained in the

corresponding liquid container are stored as said information in each said memory element, and

it is decided that the liquid container should be replaced with said replacement liquid container in the case where the remaining amount of the liquid in the replacement liquid container is larger than a remaining amount of the liquid in the liquid container which is mounted on said carriage and retains a liquid of the same color as that of the liquid in said replacement liquid container.

13. The method for a liquid injection apparatus according to claim 11 or 12, characterized by further comprising displaying on a display device the acquired information about the liquid in said replacement liquid container.

14. A control program for a computer of a liquid injection apparatus which performs liquid injection while moving a carriage on which a liquid container is mounted, the liquid container having a memory element which stores information about retained liquid, and the carriage having a liquid injection head which injects said liquid, wherein the control program allows the computer to function as:

means for acquiring information about a liquid, stored in a memory element equipped on a replacement liquid container replaceable with the liquid container mounted on said carriage;

means for determining whether or not to replace said liquid container mounted on said carriage with said replacement liquid container, based on the information about a liquid in said replacement liquid container; and

means for moving said carriage to a replacement position in the case where it is decided that the liquid container mounted on said carriage should be replaced with said replacement liquid container.

15.   The control program according to claim 14,
characterized by allowing said computer to further function as
means for acquiring the information stored in said memory
5   element of the liquid container mounted on said carriage, and
characterized in that
      a color and remaining amount of liquid retained in the
corresponding liquid container are stored as said information
in each said memory element, and
10   it is decided that the liquid container should be
replaced with said replacement liquid container in the case
where a remaining amount of the liquid in the replacement
liquid container is larger than the remaining amount of the
liquid in the liquid container which is mounted on said
15   carriage and retains a liquid of the same color as that of the
liquid in said replacement liquid container.

      16.   The control program according to claim 14 or 15,
characterized by allowing said computer to further function as
20   means for displaying on a display device the acquired
information about the liquid in said replacement liquid
container.